

basal toothed line which runs in a slight curve from margin to margin, close beneath and about the middle of hind wings, an extra discal line which makes a deep dip below discal spot and then runs high up on outer margin. Beneath the discal spots faint, a faint spot on middle of costa, wings a paler ash gray than above with no markings except a black patch near tips of fore wings, which seems to fade out at vein 4. Expanse, 34 mm.

Locality. — Huachuca Mts., Arizona, Aug. 17, 1903.

Type. — Two males.

NOTE ON SYNONYMY.

Through an error *Caripeta piniata* Packard was left out as a synonym of *Caripeta angustiorata* (Jour. N. Y. Ent. Soc., XIV; 128, 1906) and the synonymy should read:

Caripeta angustiorata Walker.

piniata PACKARD.

seductaria STRECKER.

NOTES ON THE LARVÆ OF DATANA ROBUSTA STRECKER.

BY GEORGE H. FIELD,

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Last winter I made up my mind to find if possible the larvæ of two moths: *Hemileuca electra* and *Gloveria medusa*. About February 1st my friend, Mr. Frank Stephens, the author of "California Mammals," wrote on a card this description of *G. medusa*, given him by Mrs. Katherine Brandegee, the well known botanist, and also a resident of San Diego: "Large, dull brownish black, with one white spot in middle of fore wing. Food plant, *Rhus*. Lived in caterpillar state eight months or more, and in the pupa state one to two months." I then began to search the *Rhus laurina*, and at last I was rewarded by finding close to my home a bush where a colony of some kind of larvæ had fed, but no live caterpillars could I find. I continued my efforts for some time but without success. I read the description to one of my sons and he said he had observed the larvæ about a month previously, but his memory was evidently at fault, as I feel perfectly safe in stating that all larvæ disappear by November 20th, save possibly a much belated lone one or two. Not being able to find the things sought, I resolved to be there on schedule time when next

they came. Some time in March, my son, who had evidently been doing some thinking on the subject, took a trowel and dug around the base of a *Rhus* where the leaves gave evidence of having furnished the necessaries of life to a colony of something, and was rewarded by unearthing several pupæ. The digging was continued at odd times until we had about fifty. These were placed in earth in two cigar boxes and the boxes were placed in a large breeding cage. Of course I knew(?) I had *G. medusa*. On September 1st the first adult appeared, but it was not *G. medusa* by any means. A friend owned Holland's "Moth Book" and he decided it was *Datana integerrima*. Later he expressed doubt on his first statement and thought it might be *D. californica*. If it was the latter I knew it would be of more value for exchange purposes than the former. To settle the question I forwarded two specimens to Dr. Dyar which were identified as *D. robusta*. If my memory serves me rightly, the larvæ appeared about September 15th. While very young and up to the time that they reach at least one-third of their growth they cluster closely, but afterward they separate, each going by itself. The thought came to me, how do they get the necessary food while clustering? Do they separate in the darkness to feed and return to herd together in the day? I am very much of the opinion that this is correct. That they feed in the night is true. In fact I think that they are more active after nightfall than in day time. One can hear them feeding very distinctly two or three feet away from the breeding cage. When nearly grown they feed day and night. On attaining their full growth they descend and enter the ground to pupate. The soil under the *Rhus* where I found the pupæ was for four or five inches in depth, composed almost entirely of decayed leaves and small branches that had accumulated for years, making it very light and porous. This rested on a hard subsoil of clay. The larvæ would usually go down to this hard subsoil to pupate, but do not enter it except so far as to make a little bed to lie in. I would mention here that the pupæ are perfectly naked and have no covering whatever, while in that state. A considerable number would not reach the subsoil, but pupate in the light top soil. As I stated I had fifty pupæ but through ignorance or carelessness which probably created unnatural conditions I succeeded in obtaining only about a dozen adults.

Dr. Dyar describes the larvæ as follows :

"Similar to *D. perspicua* G. & R., but the yellow lines narrower. The color of the body in the mature larvæ is black, not red in any of the specimens sent. The lines are yellow, narrower than the intervening spaces throughout, separated at the ends; dorsal space rather broadly black; head, cervical shield, anal plate and leg-shields black. Hairs all whitish, rather abundant. There are four yellow lines on each side above the feet, a narrow, broken pedal one and a broader distinct medio-ventral one, the ventral areas between the abdominal feet red."

NEW ENGLAND CATERPILLARS; NO. I.

BY WM. T. M. FORBES,

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Argynnis aphrodite Fabricius.

Body dull black, with faintly paler spotting; jet black around the hornbases. In structure belongs strictly to *Argynnis*; spines all equal, as long as width of joint with lateral spinules a third length of spine over all. Dorsal spines black, upper laterals on abdomen with faint horn-colored bases, lower laterals and laterals of thorax pale horn-color, except the very tip. Legs black, tips of abdominal ones paler. Paler below. The pale ground forms a sort of double dorsal line between the black sub-dorsal spots. $1\frac{1}{4}$ inches long when resting.

Granby, Mass., June 6, 1906, well grown. Hung up June 18, in a rudimentary cocoon; pupated June 20; exit July 10, a crippled but perfectly normal female.

Scudder has good descriptions of the other Eastern *Argynnides* in *The Butterflies of New England*, but only a brief note on *aphrodite*. I have seen no full description.

TABLE OF THE EASTERN SPECIES OF ARGYNNIS.

Black, with spinules less than half length of spines.

Rich black, all spines horn color at base.....*cybele*.

Black and paler mottling, lateral spines only with pale.....*aphrodite*.

Deep purplish, with spinules half length of spines.....*atlantis*.

Alcestis is apparently unknown.